

DESCRIPTION

MATCHING DEVICE AND RECEIVER USING THE SAME

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TECHNICAL FIELD

The present invention relates to a matching device enabling a small antenna to receive high-frequency signals, and to a receiver including the matching device.

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BACKGROUND ART

Portable communication devices, such as mobile phones, have been recently expected to have multifunction. Particularly according to start of terrestrial digital broadcasting creates new demand for watching television (TV) broadcasts on mobile phones. Japanese Patent Laid-Open Publication
15 No.2001-526483 and Japanese Patent Laid-Open Publication No.2003-188952 disclose such multifunctional communication devices.

A conventional portable receiver will be described below. Fig. 22 is a block diagram of the conventional portable receiver.

----- Antenna 1 for a mobile phone receives a mobile phone signal, a high
20 frequency signal of about 850MHz. Antenna 1 has a length of about 1/4 wavelengths (about 70mm) of the signal so as to have an impedance of 50Ω at the frequency of the signal.

An output of antenna 1 is connected to transmitting/receiving section 2 outputting digital audio data obtained by demodulating the received
25 mobile phone. An output of transmitting/receiving section 2 is connected to signal processor 3 for converting the digital audio data output from transmitting/receiving section 2 into an analog audio signal and outputting